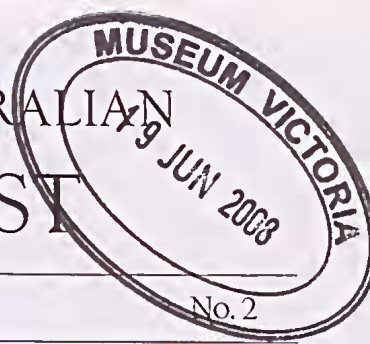


# THE WESTERN AUSTRALIAN NATURALIST



Vol. 26

30th April 2008

## BIRDS OF NATURALISTS ISLAND, KIMBERLEY, WESTERN AUSTRALIA

By KEVIN COATE  
11 Peak View, Canning Vale WA 6155

### SUMMARY

This paper is based on data gathered on twenty-one visits to Naturalists Island between 1984 and 2007, which ranged from a few hours to several days during the dry season (April-October). A total of 80 bird species – 44 non passerine and 36 passerine were recorded and data on each are presented. Habitats and vegetation of the island are briefly described. Mention is made of other fauna and a shallow fringing reef.

### INTRODUCTION

Naturalists Island (15°01'10"S 125°21'31"E), is located on the North West coast of Western Australia in Prince Frederick Harbour at the mouth of the Hunter River. The steeply elevated and rocky island is

about 2kms by 1km in size and separated from the mainland at the narrowest point by a channel of less than half a kilometre. On low spring tides extensive mud flats and sand bars are exposed, reducing the channel to only a few hundred metres.

Members of the Western Australian Naturalists' Club leaving from Derby, first visited what was then an unnamed island in June 1984 (*The Naturalist News* – July 1984) on an adventurous long-range excursion exploring the Kimberley coast. At a number of locations biological surveys were undertaken. The Club revisited the island in May 1987, June 1992 and September 2006 (*The Naturalist News* – March 2007). Since then Naturalists Island has been used as a base for other biological surveys into the Hunter and Roe

# NATURALISTS ISLAND



LEFT: Map of Naturalists Island showing main geological formations and rain forest areas. Map drawn by Ian Coate. ABOVE: Naturalists Island showing Naturalists Beach. BELOW: Group from Bird Observers Club of Australia on Naturalists Island in 1993 with Prince Frederick Harbour in background.



rivers. In February 2004 the Department of Land Information Geographic Names Committee gave approval for the island to be named Naturalists Island (*The Naturalist News* – April 2004).

The geology of Naturalists Island is similar to the adjacent mainland. Approximately two thirds of the island is composed of rugged, desiccated King Leopold Sandstones and the remainder is Hart Dolerite with a capping of overlaying sandstone on the highest points toward the southern end. A few faded paintings under rock overhangs indicate Aboriginal ties to the island.

There are two beaches on the western side of the island, both of which run in almost a north-south direction. The most southerly beach named Naturalists Beach (*The Naturalist News* – May 1990) has a good anchorage for boats, especially during periods of easterly winds. Toward the southern end of this beach during low spring tides a shallow fringing reef is bared, exposing an extra-ordinary array of colourful gorgonian corals, sponges, molluscs, crabs, fish and other interesting marine life as yet undocumented. Cloudy water caused by the continually changing tides, usually obscures the vision of the reef. From observations, this reef is typical of many other little known fringing reef systems connected to islands along the Kimberley coast, which with future studies

will most likely prove to be of major interest to marine biologists. There are two smaller beaches on the south-east side of the island, which face the Hunter River.

A gully of dense remnant rain forest extends upwards in a north-easterly direction from Naturalists Beach to a saddle between two hills overlooking the mainland. The hill on the west side of the saddle is 169m above sea level, and that on the east side is slightly lower at 159m. From the summit of these hills, spectacular views can be seen over Prince Frederick Harbour and toward the mouth of the Hunter and Roe rivers. During the wet season water flows down this gully, which has been known to contain pools until the end of May. On 29 April 2006 water was flowing strongly from springs near the head of the gully. Another pocket of rain forest mixed with pandanus is situated above the beaches on the south-east side of the island.

There are two small seepages that at times exude fresh water until mid June. One is at the base of a sandstone cliff on the western side of the island between the two beaches, and the other in a dolerite headland on the shoreline at the southern end. There could be a further seepage above a beach on the south-east side of the island.

Vegetation on Naturalists Island is diverse. Naturalists Beach mainly consists of *Spinifex longifolius* (Beach Spinifex),



*Canavalia rosea* (Beach Bean) and *Ipomoea pes-caprae* (Beach Morning Glory). The remnant rain forest behind the beach and up the gully leading to the saddle, includes *Albizia lebbek* (Rain Tree), *Mallotus dispersus*, *Sterculia quadrifida*, *Melia azedarach* (White Cedar), *Lysiphyllum cunninghamii* (Kimberley Bauhinia), *Ficus racemosa* (Stem Fruited Fig), *Pandanus* sp., *Aidia racemosa*, *Flagellaria indica* (Supplejack), *Adenia heterophylla*, *Capparis* sp., *Jasminum didymum* (Wild Jasmine), *Celtis philippensis*, *Abrus precatorius* (Crabs Eye Bean), *Geodorum neocaledonicum* (a terrestrial orchid growing on red volcanic soil) and *Auricularia* sp. (Ear Fungus) attached to vines. Vegetation over the King Leopold sandstone slopes and hills, include *Plectrachne* sp. (Hummock Grass), *Eucalyptus miniata* (Woollybutt), several with hollows hosting *Cymbidium canaliculatum* (epiphytic orchid), *Callitris intratropica* (Cypress Pine), *Ficus platypoda* (Common Rock Fig), *Grevillea refracta* (Silverleaf Grevillea), *Grevillea wickhamii* (Wickham's Grevillea), *Grevillea agrifolia* (Blue Grevillea), *Acacia adenogonia*, *Hibbertia ledifolia*, *Calytrix exstipulata* (Turkey Bush), *Bossiaea bossiaeoides* and *Xanthostemon paradoxus*. For two years after a severe fire in 1992 *Trachymene dendrothrix* and other fire regenerative herbs and grasses dominated over the sandstone. Over the Hart Dolerite there is rank grassland consisting of

*Sorghum* sp. and other grasses inter mixed with *Cochlospermum fraseri* (Kapok Tree), *Brachychiton viscidulus* (Kimberley Rose), *Corymbia* sp. and *Terminalia* sp. Some mangroves grow on the north-eastern side of the island.

#### ANNOTATED BIRD SPECIES LIST

This list is a summary of data gathered on twenty-one visits to Naturalists Island between 1984 and 2007, which ranged from a few hours to several days during the dry season (April–October). Names accord with those used by Johnstone (2001).

#### MEGAPODIIDAE

Orange-legged Scrubfowl – *Megapodius reinwardt*

Moderately common. Resident in remnant rain forest areas behind Naturalists Beach. Their distinctive screaming and chuckling calls are often heard shortly before dawn and on moonlit nights.

Breeding. Two nest mounds (one more accessible than the other is on the shore-line above Naturalists Beach).

#### PHASIANIDAE

Brown Quail – *Coturnix ypsilophora*

Scarce. A flock (about 8) on 10 June 1984. Although only recorded on one occasion, it is not uncommon to find Brown Quail on other Kimberley islands with long grass.

#### PHALACROCORACIDAE

Pied Cormorant – *Phalacrocorax varius*

Scarce. One resting on the shoreline on 10 September 2006.

#### PELECANIDAE

Australian Pelican – *Pelecanus conspicillatus*

Scarce. Two resting on Naturalists Beach on 25 May 1987.

#### ARDEIDAE

White-faced Heron – *Ardea novaeollandiae*

Moderately common. Four on rocks on eastern side of island on 25–26 May 1987. One on 2 June 1992 and 10 September 2006.

Eastern Reef Egret – *Egretta sacra*

Common. Both white and grey colour phases.

#### ACCIPITRIDAE

Osprey – *Pandion haliaetus*

Moderately common. One or two on most visits.

Square-tailed Kite – *Hamirostra isura*

Scarce. One observed by JN Talbot, flying at canopy level above remnant rain forest and eucalyptus covered slopes, to catch and eat two small birds on 25 May 1987.

Occasionally recorded flying low over mangals in the nearby Hunter River.

Whistling Kite – *Haliastur sphenurus*

Uncommon. One on 10 June 1984 and 28–29 May 1996.

Brahminy Kite – *Haliastur indus*  
Moderately common. 1 or 2 on most visits.

Breeding. A pair with a nest in a tree against a cliff face at the northern end of Naturalists Beach on 2 May 2000.

Grey Goshawk – *Accipiter novaehollandiae*

Scarce. One in remnant rain forest gully up from Naturalists Beach on 2 June 1992.

Brown Goshawk – *Accipiter fasciatus*

Occasionally seen on edges of the rain forest and eucalyptus woodland.

Little Eagle – *Aquila morphnoides*

Uncommon. One on 4 June 1985, 25 May 1987, 4 June 1993 and 28–29 May 1996. In 1993 a Brahminy Kite and a Little Eagle were seen to lock talons in an aerial fight above Naturalists Beach.

Wedge-tailed Eagle – *Aquila audax*

Uncommon. One flying around cliffs on several occasions on 21–22 June 1984.

White-bellied Sea-Eagle – *Haliaeetus leucogaster*

Moderately common. One or two in the vicinity on most visits.

#### FALCONIDAE

Brown Falcon – *Falco berigora*

Uncommon. One on 10 June 1984 and 4 June 1985.

## SCOLOPACIDAE

Whimbrel – *Numenius phaeopus*  
Moderately common. In small flocks (4–8) on Naturalists Beach and sand banks on east side at low tide.

Common Greenshank – *Tringa nebularia*  
Scarce. One on 2 June 1992.

Common Sandpiper – *Tringa hypoleucos*  
Uncommon. Three at southern end on 10 September 2006.

## BURHINIDAE

Beach Stone-Curlew – *Esacus neglectus*  
Moderately common. On one occasion, a pair was observed on Naturalists Beach feeding on the abundant hermit crabs. They appeared selective before picking one up and beating it against a rock until the crab was ejected from its mollusc-shell home. Similar beaches on nearby islands often have a resident pair.

## HAEMATOPODIDAE

Pied Oystercatcher –  
*Haematopus longirostris*  
Moderately common. 1–3 on shore-line and rocks on most visits. Often heard at night.

Sooty Oystercatcher –  
*Haematopus fuliginosus*  
Moderately common. Not recorded as often as Pied Oystercatcher on Naturalists Island – more common elsewhere.

## GLAREOLIDAE

Australian Pratincole – *Stiltia isabella*

Uncommon. One on Naturalists Beach on 21–22 June 1984. It was remarkably unafraid and came to within a few metres of us. Several on 28–29 May 1996.

## LARIDAE

Silver Gull – *Larus novaehollandiae*  
Scarce. One on 22 June 1984.

Caspian Tern – *Sterna caspia*  
Scarce. An occasional single bird flying past.

Lesser Crested Tern – *Sterna bengalensis*  
Moderately common. Flying close inshore and occasionally resting on rocks at southern end

Crested Tern – *Sterna bergii*  
Uncommon to moderately common. Flying close inshore and occasionally resting on rocks with Lesser Crested Tern at southern end.

## COLUMBIDAE

Emerald Dove – *Chalcophaps indica*  
Uncommon to moderately common. One or two in remnant rain forest gully.

White-quilled Rock Pigeon –  
*Petrophassa albipennis*  
Moderately common (2–6) on sandstone and around cliff faces.

Bar-shouldered Dove – *Geopelia humeralis*

Common in and around the fringes of the rain forest.

Rose crowned Fruit-Dove – *Ptilinopus regina*

Moderately common (2–3) in remnant rain forest. Some times difficult to locate in the canopy – their distinctive accelerating call usually heard on most visits.

Pied Imperial Pigeon – *Ducula bicolor*

Moderately common. A small flock (7) on Naturalists Island in May 1996.

Unlike other populations in Northern Australia, the Kimberley population does not migrate. However they occasionally form large flocks. A flock (at least 250) was on the Coronation Islands to the west of Prince Frederick Harbour on 2 June 1993. A similar size flock on St Andrew Island in St George Basin to the south on 5 June 1993. A flock (at least 60) was at the entrance to the Hunter River opposite Naturalists Island on 21 July 1997.

#### PSITTACIDAE

Red-tailed Black Cockatoo – *Calyptorhynchus banksii*

Scarce. A flock (about 10) on 2 June 1992. Flocks (up to 20) seen from Naturalists Island on the mainland.

Sulphur-crested Cockatoo – *Cacatua galerita*

Uncommon. Two on 21–22 June 1984 and 10 September 2006.

Red-winged Parrot – *Aprosmictus erythropterus*

Scarce. Several on 25 May 1987.

#### CUCULIDAE

Brush Cuckoo – *Cacomantis variolosus*

Scarce. One on 8 August 2005.

Horsfield's Bronze-Cuckoo – *Chrysococcyx basalis*

Scarce. One on 21–22 June 1984.

#### CENTROPODIDAE

Pheasant Coucal – *Centropus phasianinus*

Moderately common. Heard calling more often than seen.

#### STRIGIDAE

Barking Owl – *Ninox connivens*

Scarce. One calling from remnant rain forest gully behind Naturalists Beach on 25 May 1987.

Boobook Owl – *Ninox novaeseelandiae*

Moderately common. One calling on several visits.

#### PODARGIDAE

Tawny Frogmouth – *Podargus strigoides*

Scarce. One flushed from a small tree (*Corymbia* sp) growing in soil over Hart Dolerite at southern end on 4 June 1985.

#### HALCYONIDAE

Blue-winged Kookaburra – *Dacelo leachii*

Uncommon. One on 4 June 1985, one on 1 May 2005 and two on 7 August 2005.



Sacred Kingfisher – *Todiramphus sanctus*

Moderately common.

#### MEROPIIDAE

Rainbow Bee-eater – *Merops ornatus*

Moderately common.

#### PITTIDAE

Rainbow Pitta – *Pitta iris*

Moderately common (1–2) in remnant rain forest gully above Naturalists Beach.

#### PARDALOTIDAE

Striated Pardalote – *Pardalotus striatus*

Scarce. Several in eucalyptus woodland on 20 June 2004.

#### ACANTHIZIDAE

Weebill – *Smicrornis brevirostris*

Uncommon. Small flock (5) on 25 May 1987 and (3) on 4 September 2004.

Green-backed Gerygone – *Gerygone chloronotus*

Scarce. One on 21–22 June 1984 – probably more common than recorded.

#### MELIPHAGIDAE

Brown Honeyeater – *Lichmera indistincta*

Very common on most visits.

Red-headed Honeyeater – *Myzomela erythrocephala*

Uncommon (an occasional visitor) – probably more common in the few mangroves on the eastern side.

White-lined Honeyeater – *Meliphaga albilineata*

Moderately common. Six (mainly immature) on 27 May 1987.

White-gaped Honeyeater – *Meliphaga unicolor*

Common on most visits.

White-throated Honeyeater – *Melithreptus albogularis*

Common. Attracted to *Eucalyptus miniata* blossom.

Little Friarbird – *Philemon citreogularis*

Moderately common on most visits.

Silver-crowned Friarbird – *Philemon argenticeps*

Common.

Breeding. A pair feeding young in a nest in *Eucalyptus miniata* on a cliff-face on the northern end of Naturalists Beach on 10 June 1984.

Banded Honeyeater – *Cissomela pectoralis*

Scarce. Several on 25 May 1987 – attracted to *Eucalyptus miniata* blossom.

Rufous-throated Honeyeater – *Conopophila rufogularis*

Scarce. Several in eucalyptus woodland on 28–29 May 1996.

#### PETROICIDAE

White-browed Robin – *Poecilodryas superciliosa*

Scarce. One in remnant rain forest gully behind Naturalists Beach on 4 June 1985.



## PACHYCEPHALIDAE

Rufous Whistler – *Pachycephala rufiventris*

Uncommon. Two on 25 May 1987 and 4 September 2004.

## DICRURIDAE

Broad-billed Flycatcher – *Myiagra ruficollis*

Scarce. One in rain forest gully behind Naturalists Beach on 28–29 May 1996.

Leaden Flycatcher – *Myiagra rubecula*

Common on most visits.

Shining Flycatcher – *Myiagra alecto*

Scarce. One in rain forest gully behind Naturalists Beach on 29 April 2006.

Rufous Fantail – *Rhipidura dryas*

Uncommon. One on 25 May 1987 and two 10 September 2006.

Northern Fantail – *Rhipidura rufiventris*

Common on most visits.

Spangled Drongo – *Dicrurus bracteatus*

Uncommon. One on 4 June 1985, 2 on 4 September 2004 and 2 on 8 August 2005 – in the gully on the edge of remnant rain forest behind Naturalists Beach.

## CAMPEPHAGIDAE

Black-faced Cuckoo-shrike – *Coracina novaehollandiae*

Common on most visits.

Breeding. One on a nest situated

in the fork of a horizontal limb of a *Eucalyptus miniata* at the northern end of Naturalists Beach in May 1987.

White-breasted Cuckoo-shrike – *Coracina papuensis*

Moderately common.

White-winged Triller – *Lalage tricolor*

Uncommon. Several on 10 June 1984 and 25 May 1987.

Varied Triller – *Lalage leucomela*

Moderately common to common.

Breeding. A pair with a nest in the horizontal fork of a branch of a small *Lysiphyllum cunninghamii* tree in remnant rain forest behind Naturalists Beach. Observed sitting over 2 days on 3–4 June 1993. Rarely recorded breeding in the Kimberley. This may be the first breeding record.

## ORIOOLIDAE

Yellow Oriole – *Oriolus flavocinctus*

Scarce. A pair in remnant rain forest behind Naturalists Beach on 21 June 1984.

## ARTAMIDAE

White-breasted Woodswallow – *Artamus leucorhynchus*

Scarce. Several on 28–29 May 1996.

Black-faced Woodswallow – *Artamus cinereus*

Scarce. A small flock (about 8) on 5 May 2002.

Little Woodswallow – *Artamus minor*  
Moderately common around cliff-faces.

#### CRACTICIDAE

Pied Butcherbird – *Cracticus nigrogularis*  
Scarce. One on 4 June 1985.

#### PTILONORHYNCHIDAE

Great Bowerbird – *Ptilonorhynchus nuchalis*  
Common on all visits. Several bowers on the edge and in the remnant rain forest gully above Naturalists Beach.

In May 1993 it seemed that the late 1992 wild fire, having burnt off leaf litter exposing snail shells, had benefited at least one male. There were almost double the number of large white snail shells mounded up at the entrance to its bower, since the previous visit in June 1992.

#### HIRUNDINIDAE

Tree Martin – *Hirundo nigricans*  
Moderately common.

Fairy Martin – *Hirundo ariel*  
Uncommon. Remains of old nests beneath a rock ledge near the top of the hill on north side of gully in 1993.

#### ZOSTEROPIDAE

Yellow White-eye – *Zosterops luteus*  
Scarce. Several on 25 May 1987.  
Probably more common on the

eastern side, where there are some mangroves.

#### SYLVIIDAE

Golden-headed Cisticola – *Cisticola exilis*  
Moderately common. 1–3 on grassed areas over dolerite at southern end of island.

#### DICAEIDAE

Mistletoebird – *Dicaeum hirundinaceum*  
Moderately common.

#### DISCUSSION

A total of 80 species (44 non passerine and 36 passerine) were recorded on Naturalists Island. Due to extremely rugged terrain, bird observations were mainly restricted to the areas behind the beaches, the rain forest gully and the Hart Dolerite areas at the southern end. Although considerable work has been done recording birds on the island, there is no doubt that during different seasons other species would be found. These are likely to include Red-capped Plover (*Charadrius ruficapillus*), Peaceful Dove (*Geopelia striata*), Rainbow Lorikeet (*Trichoglossus haematodus*), Varied Lorikeet (*Trichoglossus versicolor*), Little Bronze-cuckoo (*Chrysococcyx minutillus*), Common Koel (*Eudynamys scolopacea*), Dollar Bird (*Eurystomus orientalis*), Blue-faced Honeyeater (*Melithreptus cyanotis*), Little Shrike-thrush (*Colluricincla megarrhyncha*),

Sandstone Shrike-thrush (*Colluricincla woodwardi*), Olive-backed Oriole (*Oriolus sagittatus*), Figbird (*Sphecotheres viridis*) and Torresian Crow (*Corvus orru*).

Access over much of the island can be difficult, unless there has been a fire. This is largely due to a dense covering of hummock grass that builds up over jumbled sandstone boulders. Caution is advised when walking over sandstone, as many large seemingly stable boulders can un-expectedly tip.

Fire is a major factor detrimental to the island's bird population. Although infrequent, un-controlled wild fires, such as one that occurred in the late dry season of 1992 (probably caused by a lightning strike) alters habitat, particularly remnant rain forests. Prior to 1992 it had been many years since the island suffered a major fire, evidenced by the very dense build up of *Plectrachne* sp. (Hummock Grass) and a number of fire sensitive *Callitris intratropica* (Cypress Pine) growing on the slopes. On a visit in May 1993 (with the Bird Observers Club of Australia), following the fire of 1992, the island was devoid of its usual coverage of hummock grass. With the exception of a few Cypress pine trees on the side of cliffs that escaped the blaze, all others were dead. *Eucalyptus miniata* (Woollybutt) being more fire resistant, survived, even though their crowns were burnt. Fortunately the fire did not fully penetrate the remnant rain

forest gully behind Naturalists Beach, although several large trees on the outer edge were destroyed reducing it in size.

Since the 1990s Naturalists Island has become increasingly popular as a stopover for luxury cruise boats on ECO tours, when exploring the Hunter and Roe river region. Naturalists Beach is now also used as a touch-down and pick-up point for helicopters transferring passengers from these boats to Mitchell Falls on the Mitchell Plateau. These activities mainly occur during the dry season. There is little doubt that at times they are intrusive and disruptive to some birdlife in the rain forest behind the beach area – for example Orange-legged Scrubfowl and Beach Stone-Curlew which have been observed to temporally leave the area.

#### Other Fauna

The Pale Field Rat (*Rattus tunneyi*) was common in warrens behind Naturalists Beach in 2005 and 2006. In previous years other warrens recorded higher up on the edges of the rain forest gully, may have belonged to the same species. Single burrows on the slopes and around cliff faces may be worth further investigation. Scats of the Short-beaked Echidna (*Tachyglossus aculeatus*), first noticed in 1984, are occasionally found in the sandstone. Saltwater Crocodiles (*Crocodylus porosus*) inhabit the surrounding waters and sometimes come ashore on the island.



An unidentified Monitor (*Varanus* sp.) was seen above the beach on the eastern side of the island in May 1987. A Common Tree Snake (*Dendrelaphis punctulatus*) was identified in the rain forest gully behind Naturalists Beach in June 1984 and several unidentified species of Skink have also been seen. Common Sheathtail Bat (*Taphozous georgianus*) are occasionally found sheltering in the cavity of a prominent rock on Naturalists Beach. Little Red Flying-fox (*Pteropus scapulatus*) fly from the mainland and feed on flowering *Eucalyptus miniata* (Woollybutt) trees. Common Crow Butterflies (*Euploea core*) are common under rain forest vegetation in the gully behind Naturalists Beach and a large Orb Weaver Spider, (most likely *Nephila maculata*) is commonly encountered in the rain forest gully.

#### ACKNOWLEDGMENTS

These recordings would not have been possible without the participation of members of the Western Australian Naturalists' Club, Coates Wildlife Tours, the Bird Observers Club of Australia (1993 long-range expedition), the Kimberley Society (1996 Kimberley Coastal Excursion), Landscape Expedition ("In the Wake of the Mermaid" in 1997), Zegrahm Expeditions of Seattle USA, and other bird watching –

natural history type expeditions organised and led by Kevin Coate. I am also grateful to my wife, Yvonne, for her assistance in the preparation of this article and for her tolerance of my long absences from home.

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